From the Editor

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Welcome Back

One of the main goals of this magazine is to create and foster a sense of community among the diverse disciplines that make up biomedical computation (hence our tagline: diverse disciplines, one community). More than 2,500 biomedical computation researchers received the first issue of *Biomedical Computation Review* in print. You come from all 50 states and many overseas nations. Your fields of study are varied—from computer science to statistics to biochemistry to clinical medicine and beyond. In this issue, we cover topics in specific vertical interest areas as well as cross-cutting issues that affect us all.

Vertical Focus

Some of the topics that *BCR* covers are specific to individual disciplines. Many exciting things are happening in the microsopic realm. In this issue, Katharine Miller and Kristin Cobb uncover a variety of hot news topics in the News Bytes column, including computer simulation of nucleosomal array folding, chromatin folding and bacterial behavior, a theoretical model of prion propagation, augmented reality for molecular structure and the launch of *PLoS Computational Biology*.

In the macroscopic arena, traditional human-computer interfaces consist of keyboards and mice. But in one of the feature articles, Kristin Cobb reports on the ultimate human-computer interface: direct neuronal connections via tiny electrode arrays. Such technology offers the tantalizing possibility of restoring movement to quadriplegics, and unlocking people with ALS (Lou Gehrig's disease) from their lives of isolation.

There is a science to engineering high-quality software and this is an aspect of biomedical computing that cannot be ignored. In Editor's Picks, we discuss a variety of media formats, including an online essay, a book, and a development environment that are all apropos to software engineering.

"Beauty is truth, truth beauty," wrote Keats. He probably wasn't talking about biomedical computing, but we think it still applies. On the back cover, art and science come face to face; BLAST local sequence alignments are used to create a postmodern artwork called *Ecce Homology*.

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Cross-Cutting Issues

As in any large community, there are cross-cutting issues that are of potential interest to all. Education is one of those. In the other feature article, Shawne Neeper takes an in-depth look at interdisciplinary training in biomedical computation.

If less is more, then conversely, more is less. In Under the Hood, community contributor Ray Somorjai gives a brief tutorial on how the related curses of dimensionality and data sparsity affect the computational analyses of many varieties of biomedical data.

Community Contribution

As a service to this community, we're working hard to provide the most interesting and up-to-date coverage of biomedical computing that we can. But we need your feedback and your help. Think of this magazine as ours (as in yours and mine); let us know what you feel strongly about; and consider submitting contributions. Contact us at editor@biomedicalcomputationreview.org. □